UNITED STATES DISTRICT OF NEW YORK
SOUTHERN DISTRICT OF NEW YORK

XIAOLU "PETER" YU,

Plaintiff,

- against -

VASSAR COLLEGE,

Defendant.

CASE NO. 13-cv-04373 (HB)

AFFIDAVIT IN SUPPORT

STATE OF GEORGIA)
:ss:
COUNTY OF Cobb)

DAVID LEONARD, being duly sworn, deposes and states:

1. I am the owner of Reveal Audio Services, a recording studio specializing in music production services and audio enhancement for legal purposes.

2. I have more than twenty (20) years of experience as a studio and mastering engineer. I am a member of The Audio Engineering Society.

3. I was retained by Plaintiff on or about May 14, 2014 for the purpose of enhancing the sound quality of an audio file. I was advised that little to none of the audio file was discernible.

4. Upon first listening to the audio file, I immediately felt as if it had been processed for noise reduction and quite possibly was not an original unaltered audio file.

5. In my experience, when dealing with a good quality recording, the full audio spectrum is represented, from the lowest audible sound (20 hz) to the highest (20,000 hz). When a digital recorder is set to record for a long period of time, compromises are made. The first thing to go is the bandwidth. Generally, there is a cutoff of the high frequencies, usually somewhere

around 4000 hz., making high frequency sounds like esses and effs hard to distinguish.

6. The file is also usually recorded using a compressed streaming algorithm like MP3, which employs a "lossy" algorithm to discard as much as ninety (90%) percent of the audio information. This recording is in an uncompressed CD quality WAV format.

7. Most commercial digital recorders have one built-in microphone, and record in a monophonic (single audio channel) format, again saving space. This is a stereo (two audio channels) recording.

8. Even with these compromises, as described above, a poor quality digital recording will still pick up the ambient noise of the room (the "air"), and it still sounds like random noise, with no distinct pattern, much like a steady wind. This recording doesn't sound like that. The "air" of the room is gone and has been replaced by random musical tones which, when combined with low level speech, can sound like speech themselves.

9. There are two types of noise reduction: static and adaptive. Adaptive noise reduction uses small windows of time to "look ahead," compare, and cancel the noise as it occurs, window by window. With static noise reduction, a snapshot is taken of a representative area of noise (the noise profile), and this pattern is used overall to bring down the level of noise. Either method can produce the musical tones I am hearing, but it is most common with static noise reduction due to the fact that it cannot usually reduce the noise level by more than a few decibels without introducing some kind of artifacts.

10. My final assessment is that the audio file provided to Plaintiff was processed to reduce noise, and this process introduced "musical" artifacts, which caused further degradation to an already poor quality audio recording.

David Leonard

Sworn to before me this
16th day of May, 2014.

Notary Public

CHARLES WILLIAMS
NOTARY PUBLIC
Lowndes County
State of Georgia
My Comm. Expires Oct. 22, 2016